

Date: Wednesday, 1/11/2006 4:21:11 PM
 User: Kim Johnston

Process Sheet

Customer :	CU-DAR001 Dart Helicopters Services	Drawing Name :	BRACKET ASSEMBLY
Job Number :	25441D		
Estimate Number :	10281		
P.O. Number :	N/A	Part Number :	D3183043
This Issue :	1/11/2006	Drawing Number :	D3183 REV C1
Prsht Rev. :	NC	Project Number :	N/A
First Issue :	N/A	Drawing Revision :	C1
Previous Run :	24266D	Material :	N/A
Written By :	SEE COMMENT BELOW	Due Date :	2/18/2006
Checked & Approved By :	SEE COMMENT BELOW	Qty:	4 Um: Each
Comment :	Est Rev:Pick:A 04.02.18 New issue KJ/DS		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	M174B2000X01500	17-4 SS Bar
-----	-----------------	-------------



Comment: Qty.: 0.4812 f(s)/Unit Total: 1.9249 f(s)
 Material: 17-4 SS Bar per AMS 5604/5643
 (M17-4-B1.500x02.000)
 Identify for D3183-043
 Batch: M14773

06/01/10

4

2.0	BAND SAW	BAND SAW
-----	----------	----------



Comment: BAND SAW 1.500"
 Cut blanks: (1.000" x 2.000") 5.500" long

BG 06-01-20

4

3.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
-----	-------	--------------------------------



Comment: HAAS CNC VERTICAL MACHINING #1

1-Machine D3183-3 as per Folio FA322 and Dwg D3183
 Identify as D3183-3

2-Deburr

3-Scribe batch number

BG 06-01-20

4

4.0	QC2	INSPECT PARTS AS THEY COME OFF MACHINE
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Comment: INSPECT PARTS AS THEY COME OFF MACHINE

BG 06-01-20

4

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 1/11/2006 4:21:11 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BRACKET ASSEMBLY

Job Number: 25441D

Part Number: D3183043

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC8

SECOND CHECK



Comment: SECOND CHECK

SA 06.01.20 4

6.0

D312121

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick:

Qty Part Number Description Batch

2 D3121-21 Bolt 324224 X8

BC 06.01.20 4

7.0

D3183045

Bearing Assembly



Comment: Qty.: 2.0000 Each(s)/Unit Total : 8.0000 Each(s)

Pick:

Qty Part Number Description Batch

2 D3183-045 Bearing Ass 323974 X8

BC 06.01.20 4

8.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Assemble D3183-043 as per Dwg D3183.

BC 06.01.20 4

9.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

BC 06.01.20 4

10.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: 4C3

C206/01/20 4

11.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

545 06/01/25 4

06/01/24

Job Completion



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☐ No ☒ DQA: 12 Date: 06/01/04
 QA: N/C Closed: _____ Date: _____

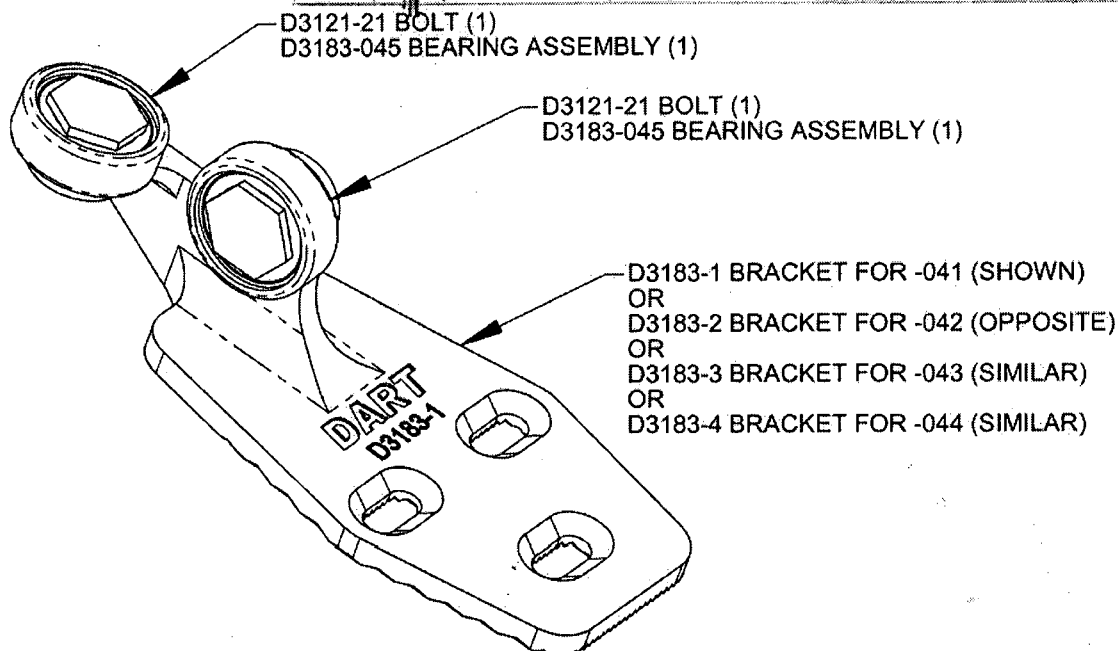
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

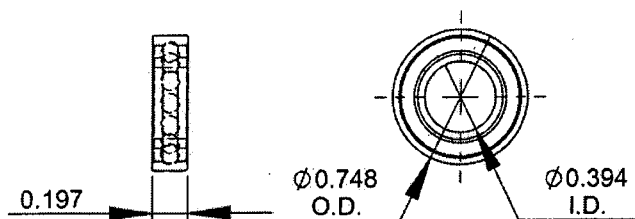


DESIGN #	DRAWN BY CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED #	APPROVED #	DRAWING NO. D3183	REV. C SHEET 1 OF 4
DATE 04.02.17		TITLE BRACKET ASSEMBLY	SCALE 1:1
A.	03.01.24	NEW ISSUE	
B.	03.06.17	REMOVE BEARING; 1.012 WS 0.882	
C.	04.02.17	ADD -045/-9; 0.182 WAS 0.431	
CI	04.11.09	0.830 WAS 0.850	

RELEASED
04.03.01



D3183-041 BRACKET ASSEMBLY (SHOWN)
D3183-042 BRACKET ASSEMBLY (OPPOSITE)
D3183-043 BRACKET ASSEMBLY (SIMILAR)
D3183-044 BRACKET ASSEMBLY (SIMILAR)



D3183-5 BEARING:
SPECIFICATION CONTROL DRAWING

- 1) SINGLE ROW, DEEP GROOVE, CONRAD TYPE, SHIELDED
2) POSSIBLE SUPPLIER: NSK P/N 6800ZZ
3) ALL DIMENSIONS ARE IN INCHES

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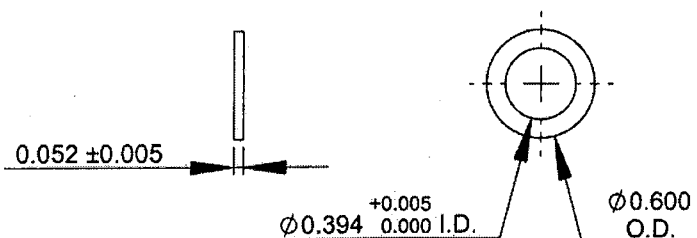
AMENDMENT
WITHOUT NOTICE

WORK ORDER

NO 2544 ID

D3183-7 WASHER

- 1) MATERIAL: AISI 303 ROUND BAR (M303R)
ANNEALED
2) BREAK ALL SHARP EDGES 0.005 TO 0.010
3) TOLERANCES ARE PER DART QSI 018
UNLESS OTHERWISE NOTED
4) ALL DIMENSIONS ARE IN INCHES



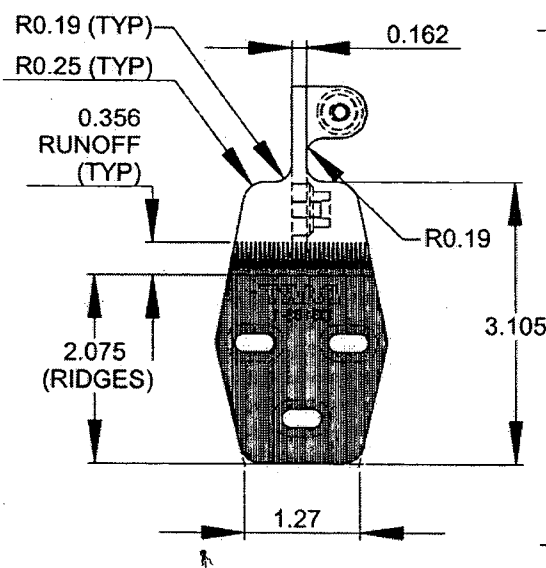
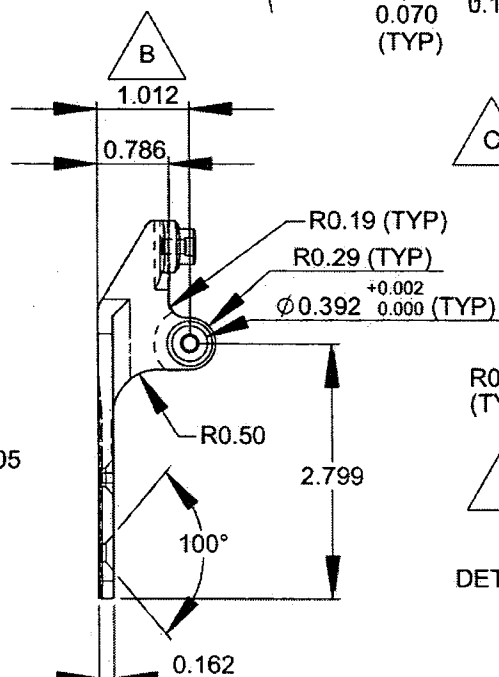
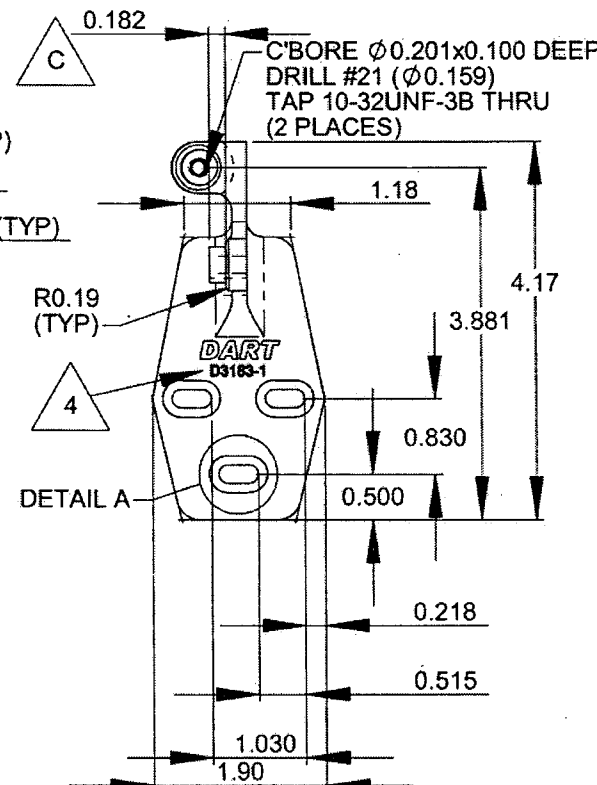
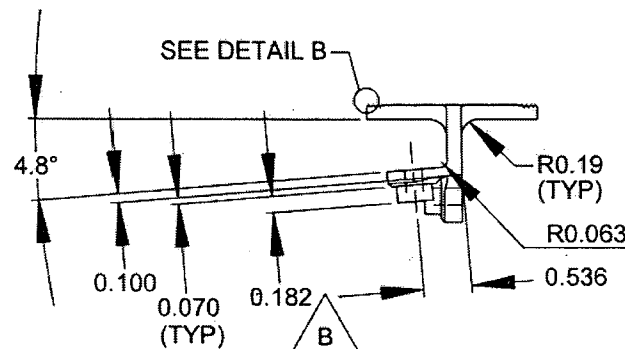
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CHECKED	APPROVED	HAWKESBURY, ONTARIO, CANADA
DATE	DRAWING NO.	REV. C
04.02.17	D3183	SHEET 2 OF 4
TITLE	SCALE	
BRACKET ASSEMBLY	1:2	

RELEASED
04.03.01



**D3183-1 BRACKET SHOWN
D3183-2 BRACKET OPPOSITE**

- 1) D3183-1 CAN BE MADE FROM D3183-3
D3183-2 CAN BE MADE FROM D3183-4
- 2) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi
- 3) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 4) ENGRAVE DART P/N & LOGO AS SHOWN
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES

NO. 254417

WORK ORDER

SUBJECT TO AMENDMENT
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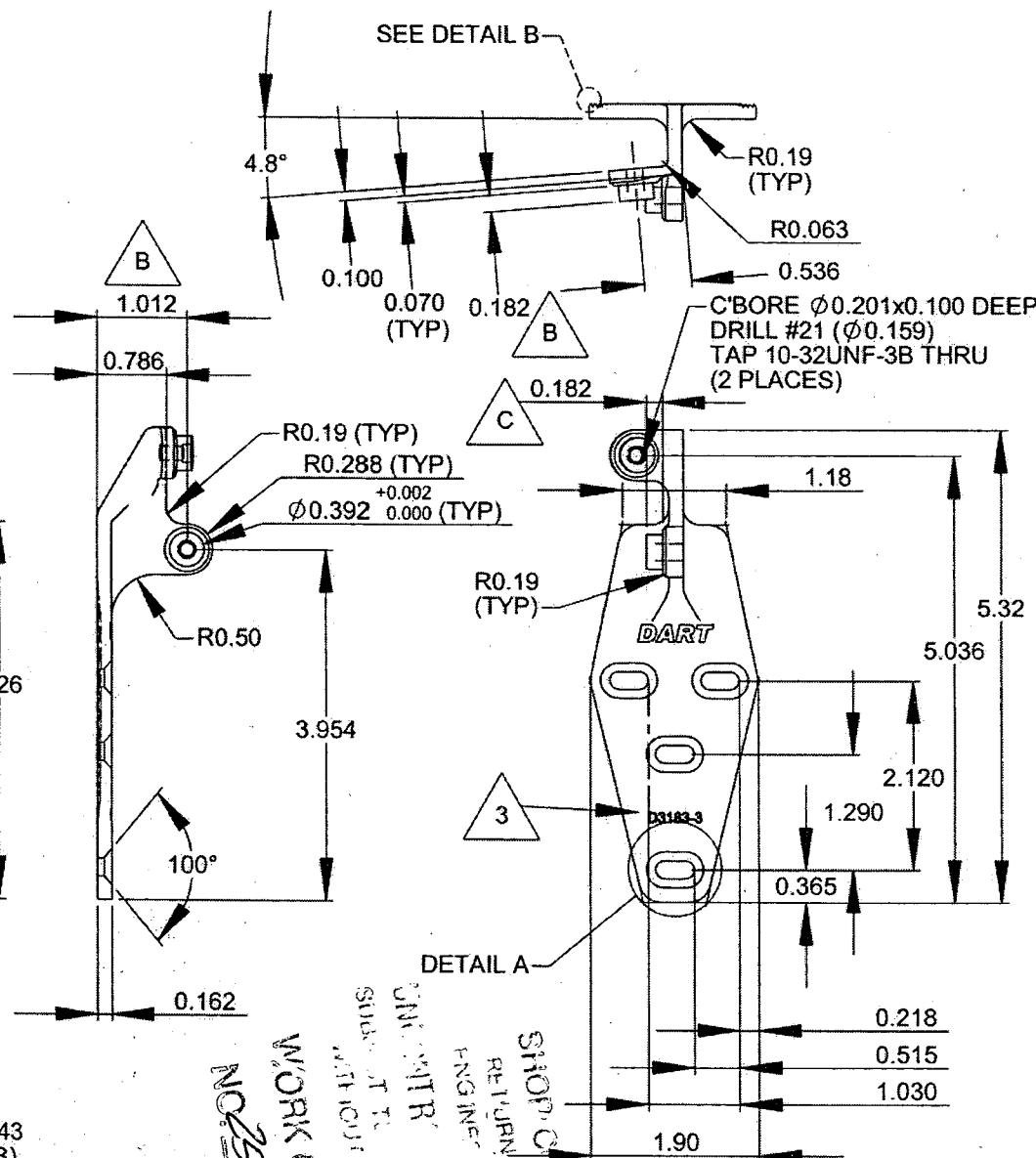
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DATE	DRAWING NO.	REV. C
04.02.17	D3183	SHEET 3 OF 4
TITLE	BRACKET ASSEMBLY	SCALE
		1:2



D3183-3 BRACKET SHOWN
(REPLACES BELL P/N 412-030-304-105)
D3183-4 BRACKET OPPOSITE
(REPLACES BELL P/N 412-030-304-106)

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643
(REF DART SPEC. M17-4-B)
MIN ULTIMATE STRENGTH = 150 ksi
MIN YIELD STRENGTH = 100 ksi
- 2) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 3) ENGRAVE DART P/N & LOGO AS SHOWN
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES

NO. 23441 D
WORK ORDER
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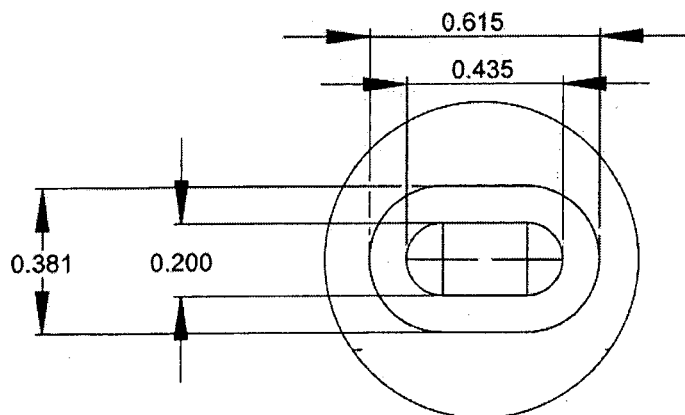
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04.02.01

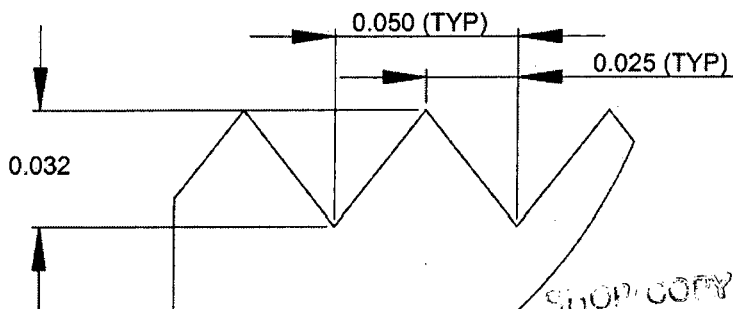


DESIGN <i>[Signature]</i>	DRAWN BY <i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3183	REV. C SHEET 4 OF 4
DATE 04.02.17	TITLE BRACKET ASSEMBLY	SCALE 1:1	



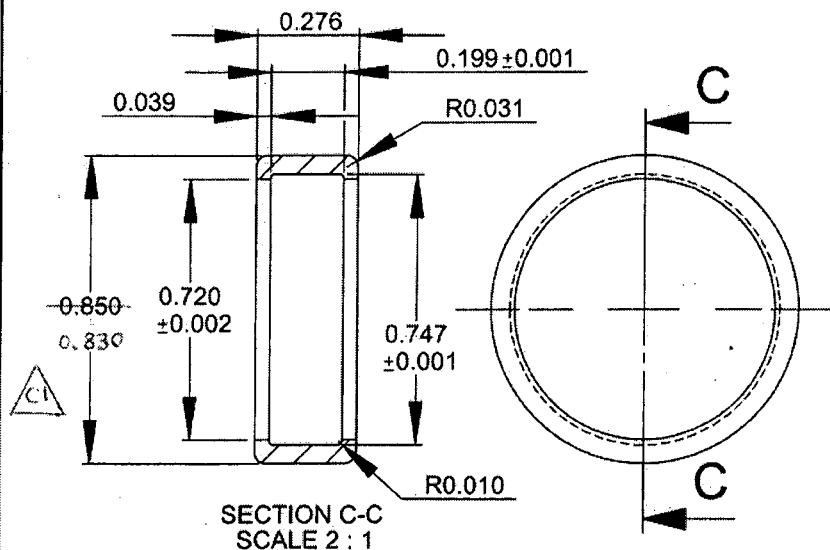
DETAIL A (2 : 1)

RELEASED
04.03.01



DETAIL B (20 : 1)

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WITHOUT NOTICE
WORK ORDER
NO. 25441 D



D3183-9 CAP

- 1) MATERIAL: DELRIN ROD, Ø1.00
(REF DART SPEC. M-DELRIN-R1.00)
- 2) TOLERANCES ARE PER DART QSI 018
UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES

D3183-045 BEARING ASSEMBLY

- 1) ASSEMBLE D3183-5 BEARING AND
D3183-9 CAP

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DART AEROSPACE LTD		Work Order: 25441 D
Description: Bracket		Part Number: 3183-3
Inspection Dwg: 3183 Rev:		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☒ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
2.08	$\pm .03$	2.08	✓			
1.55	$\pm .010$	1.55	✓			
.71	$\pm .03$	.71	✓			
4.26	"	4.26	✓			
.162	$\pm .010$	.165	✓			
1.012	"	1.009	✓			
.786	"	.776	✓			
3.954	"	3.960	✓			
.162	"	.156	✓			
$\phi .392$	$\pm .003$ $-.000$	.392	✓			To fit Bearing
.100	$\pm .010$	.092	✓			
.070	"	.066	✓			
.182	"	.182	✓			
.201 X .100	$\pm .005$ $-.001$ / $\pm .010$	.206	✓			C-bore
$\phi .159$	$\pm .005$ $-.001$	.162	✓			
5.32	$\pm .03$	5.344	✓			
.365	$\pm .010$	.364	✓			
.218	"	.211				
1.90	$\pm .03$	1.886	✓			
.032	.032 $\pm .010$	.032	✓			Serration depth

Measured by: BG	Audited by: SA	Prototype Approval:
Date: 06.01.19	Date: 06.01.20	Date:

Rev	Date	Change	Revised by	Approved
A		New Issue	KJ/JLM	